

**REMARKS**

Claims 1, 2, 4-6 and 11-14 currently appear in this application. The Office Action of July 14, 2004, has been carefully studied. Favorable reconsideration is respectfully requested.

Claims 1, 2, 6 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown et al. This rejection is respectfully traversed.

Ferrari discloses a woven fabric having similar warp and weft yarns comprising synthetic continuous filaments, preferably high strength polyamide or polyester. The weight of fabric ranges approximately from 70 to 350 grams per square meter. The coating material is preferably polyvinyl chloride resins, although it is also satisfactory to use elastomeric coating materials or polyurethane or acrylic resins. That is, Ferrari shows a fabric made of continuous filament yarns, which is then coated with a resin such as polyvinyl chloride. This is not at all the same as continuous filaments that are woven into a fabric and then subjected to disperse dyeing. Ferrari discloses making a fabric that is subsequently coated with at least two layers of a curable plastic material. This coating is applied to create a smooth fabric having a

desirable tensile strength and tearing strength. The fibers of the present invention, rather than being coated, are disperse dyed.

Speck discloses polyester fibers dyed with anthraquinone dyes. However, there is nothing in Speck to teach or suggest that dyeing with anthraquinone dyes is equivalent to coating a fabric with a resin. Additionally, there is nothing in Speck that would lead one skilled in the art to believe that the polyester fibers are continuous filament or monofilaments. As described on page 2, lines 9-14 of the present specification, continuous or monofilament yarns woven according to the present invention produce an awning fabric that is smooth, which reduces soiling of the fabric. Because the yarns woven in the manner of the present invention produce a smooth fabric, there is no need to apply the coating disclosed in Ferrari. Since the fibers in Ferrari are not dyed because they are coated, there is no motivation to dye the fibers in Ferrari, as they will eventually be covered with a coating.

Hildreth also merely discloses disperse dyeing of polyester fibers with anthraquinone dyes, but is silent as to whether these fibers are continuous filament or monofilament.

Shown et al. likewise only disclose disperse dyeing of polyester fibers with anthraquinone dyes. As with Speck

and Hildreth, there is no teaching of dyeing continuous filament or monofilament fibers with the dyes.

Ferrari discloses coating polyester fabric with a heat-curable synthetic resin and then heating the coated fabric in a curing oven. Coating has absolutely nothing to do with dyeing, and therefore the disclosures of Speck, Hildreth and Shown add nothing to Ferrari that would lead one skilled in the art to subject a polyester monofilament or continuous filament to disperse dyeing.

The Examiner has provided no motivation to combine the known process of dyeing polyester fabrics with a disclosure of coating polyester fabrics in order to produce an awning fabric having the desired smoothness and tear and tensile strength. As the Federal Circuit stated in *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002), "As applied to the determination of patentability *vel non*, when the issue is obviousness, 'it is fundamental that rejections under 35 U.S.C. 103 must be based on evidence comprehended by the language of that section.'" (Citations omitted.) When patentability turns on the question of obviousness, the search for an analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., *McGinley v. Franklin*

*Sports, Inc.*, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is a reason to combine [the] references,' a question of fact drawing on the *Graham* factors").

"The factual inquiry whether to combine references must be thorough and searching." *Id.* This precedent has been reinforced in myriad decisions, and cannot be dispensed with, *see, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ('a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential component of an obviousness holding"'') (quoting *C. R. Bard, Inc. v. M3 Systems, Inc.* 48 USPQ2d (Fed. Cir. 1998)). The Court went on to quote *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999), "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."

There is a requirement for specificity in combining references, *See, In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2002) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed").

In the present case, the Examiner has shown no motivation to combine the cited references to arrive at the particular invention claimed herein.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown as applied to claims 1-2, 6 and 11-12 above, and further in view of Uchida et al.

This rejection is respectfully traversed. As noted above, there is no motivation to combine a disclosure of disperse dyeing of polyester, without specifying the shape or type of the filaments, with a disclosure of coating polyester with a heat-curable coating. Uchida et al. merely disclose adding an ultraviolet ray absorber to a dye bath for polyester. There is no indication in Uchida et al. if the polyester fiber is a continuous filament or a monofilament polyester fiber. Uchida et al. do not provide motivation to combine a coating step with a dyeing step, but merely disclose that an ultraviolet ray absorber can be added to a dye bath for polyester. There is no motivation in any of the cited references to produce an awning fabric comprising substantially entirely wet-dyed polyester continuous filament yarn and/or polyester monofilament yarns wherein the yarn is dyed with an anthraquinone-based disperse dye and a UV block.

None of the cited patents discloses or suggests that the polyester is continuous or monofilament yarn.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown in view of Uchida et al. and further in view of Lee. The Examiner concedes that Ferrari does not mention the shape of the yarn, but Lee discloses that yarns conventionally have round cross sections.

This rejection is respectfully traversed. As noted above, Ferrari discloses coating a fabric, rather than dyeing a fabric, as claimed herein. Speck, Hildreth, and Shown merely disclose that disperse anthraquinone dyes can be used to dye polyester fabrics, without specifying that the fabrics are made from continuous or monofilament polyester. Uchida et al. add an ultraviolet absorber to a dye bath for polyester fibers. Lee discloses that a base fabric for use in papermaking is made with conventional round yarns. None of the cited references discloses or suggests producing an awning fabric from continuous or monofilament polyester yarn. The fabric of the present invention is produced from continuous polyester yarn to produce a smooth surface, which is much more resistant to soiling than conventional polyester fabrics (specification page 2, lines 9-16).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown and further in view of Curtis et al.

This rejection is respectfully traversed. As noted above, none of Ferrari, Speck, Hildreth, or Shown discloses or suggests producing an awning fabric from wet-dyed polyester continuous filament yarn and/or polyester monofilament yarn. Awning fabric produced from continuous and/or monofilament yarn is smoother and resists soiling better than polyester fabrics made from staple yarns. Curtis et al. add nothing to lead one skilled in the art to produce awnings from continuous and/or monofilament polyester yarn, as Curtis et al. merely disclose that it is known in the art to construct an awning with articulated arms. This does not supply the deficiency in Ferrari, Speck, Hildreth, and Shown, as there is nothing in Curtis et al. that would lead one skilled in the art to produce awnings from continuous and/or monofilament polyester yarn that has been disperse dyed rather than coated.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown and further in view of Lee.

This rejection is respectfully traversed. While Ferrari discloses that awning fabric can be made of continuous filament polyester yarn, the fabric produced by Ferrari is

coated with at least two coatings of a synthetic heat curable plastic material that provides surface smoothness with high tensile strength and tearing strength. The present awning fabric, on the other hand, needs no coating to enhance smoothness, as the round continuous or monofilament yarns provide sufficient smoothness to the fabric to resist soiling. Ferrari does not mention delustrants or lubricants because the polyester fibers in Ferrari are coated rather than disperse dyed, and therefore would not require delustrants or lubricants since they are subsequently coated with a different material. With respect to the warp rate and weft density of the fabric, it should be noted that Ferrari coats the polyester fabric to provide the desired tear strength and tensile strength, while the disperse dyed monofilament fabric of the present invention does not require a coating to provide strong, tough awning fabric. If determining the optimum warp and weft density is merely a matter of routine skill in the art, it would not have been necessary for Ferrari to coat the fabric, optionally on both sides, with a synthetic heat curable plastic material.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown in view of Lee and further in view of Uchida.



This rejection is respectfully traversed. Ferrari discloses coating polyester fabric. Since the fibers are coated, there is no reason to dye the fibers prior to the coating step, as the coating obscures the fibers. Likewise, Uchida's disclosure of providing a UV block to the awning of Ferrari would not lead one skilled in the art to the present invention, because Ferrari would incorporate any UV block in the coating material, which is directly exposed to sunlight, not in the polyester itself.

Claim 13 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown, and further in view of Lee in view of Delker. Delker is said to disclose that delustrants and lubricants be added to polyester in an amount no greater than 0.05%.

This rejection is respectfully traversed. Ferrari discloses a polyester fabric that is coated with a synthetic heat curable plastic material. In Ferrari, the under-layer, which is designed to adhere as well as possible to the fabric filaments, contains optional bactericide, fungicide, and UV absorber (column 5, lines 1-9). Then a second coating material is applied. The coating material is the same, but it is applied in somewhat different [lower] quantity. Since the polyester fibers of Ferrari are coated with a coating composition that contains dyes and optional UV absorbers,

there is no requirement to provide a UV block to the polyester fabric *per se*. Ferrari does not disclose any delustrants or lubricants. Since Ferrari applies coating composition to the polyester fabric, one skilled in the art would not expect that the coated fabric would require the delustrants and lubricants that would normally be used on polyester fabric, as the coated fabric of Ferrari does not have a polyester surface, but rather a surface coated with a synthetic heat curable resin.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari in view of Speck, Hildreth, or Shown in view of Lee in view of Delker and further in view of Uchida.

This rejection is respectfully traversed. Ferrari coats the polyester fabric, which coating covers the fabric, so that there is no need to dye the polyester itself, as shown in Speck, Hildreth, or Shown. Lee's disclosure of round fibers adds nothing, as the present invention uses round fibers to provide a smooth surface, and Ferrari specifically discloses that it is the coating that provides a smooth surface to the polyester fabric. As noted above, there is no reason to include a UV block or lubricants to the polyester fabric of Ferrari, as the Ferrari coating covers the polyester fibers.

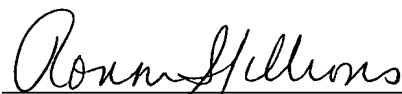
Appln. No. **09/826,369**  
Response dated October 13, 2004  
Reply to Office Action of July 14, 2004

It is noted that U.S. Patent No. 5,516,436 top  
Uchida et al. is merely cited to show the state of the art.

In view of the above, reconsideration and withdrawal  
of the outstanding rejections of record is respectfully  
requested. Applicant respectfully submits that the claims are  
now in condition for allowance, and notice to this effect is  
most earnestly solicited.

Respectfully submitted,

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